

THE MCCORD-CHRISTIAN MEDICAL FELLOWSHIP VOCATIONAL TRAINING PROGRAMME

S J Reid

The first 3 years' experience of a vocational training programme for doctors based at McCord Hospital in Durban is described and reviewed. The stated aim of the programme is to equip doctors to 'serve the under-served according to the example of Christ' and to produce caring, competent and committed doctors for areas of need.

S Afr Med J 1999; **89**: 765-769.

The geographical distribution of doctors in South Africa is weighted towards urban areas, with many large peri-urban and rural communities having relatively poor access to health services.^{1,2} Consequently standards of medical care and the level of health of the population are significantly poorer in underserved areas.³ The fact is that there are fewest doctors in those areas where the need is greatest. This is not only a geographical problem, but also an attitudinal one as there are many definable groups of people, for example street dwellers or AIDS sufferers, who are rejected by the medical system even in urban areas where help is potentially available but doctors are not prepared to get involved.⁴ In addition, those doctors who do work in under-served areas find that their undergraduate training does not equip them with the breadth of skills required in the absence of specialist support.⁵

METHODS

In an attempt to address these problems in a systematic way, a number of rural doctors in KwaZulu-Natal started discussing in 1992 the feasibility of establishing a postgraduate training programme with an appropriate orientation towards under-served areas. Vocational training schemes in First-World countries such as Canada, Australia, and the UK⁶⁻⁸ have been operating for some time, and the World Organisation of National Colleges and Organisations for Family Doctors (WONCA) has produced a Policy on Training for Rural Practice⁴ that was useful in establishing the broad terms of

765

McCord Hospital, PO Box 37587, Overport, 4067

S J Reid, BSc (Med), MB ChB, MFamMed

SAMJ



reference. This process generated a great deal of interest, particularly among rural doctors in South Africa, and two organisations, the Christian Medical Fellowship (CMF) and McCord Hospital in Durban, came together to provide the infrastructure for the training programme. Only one other programme, in Congo-Zaire, was found with aims and objectives that accorded with those of the founding group.⁹ At a workshop in 1994, with all the relevant stakeholders present, the following mission statement or aim of the programme was forged: 'To equip doctors to serve, especially the under-served, according to the example of Jesus Christ'.

At the outset of the programme it was decided that a goal of 50% success would be realistic and acceptable in terms of eventual placement of graduates of the programme according to the above aim. In 1995 a full-time director of vocational training, a family physician, was appointed under the authority of the medical superintendent of the hospital, at the same time as the first intake of 11 trainees was selected. The programme was accredited with the South African Medical and Dental Council, and was overseen by a management committee consisting of McCord Hospital and CMF representatives, including one trainee.

Trainees were selected by means of written applications and in-depth interviews, with consistently twice as many applications as places on the programme. Some preference was given to South African-qualified doctors; three of 17 entrants to the programme over 3 years have been foreign-qualified doctors. Entrants were not exclusively Christian since the programme was open to any suitably qualified and motivated person who was prepared to undergo the training within the context of the aim of the programme. Interviews were held with the goal of understanding the motivations of the applicants, and their preparedness to serve the under-served after completion of the programme. Trainees were employed as medical officers, and came to the programme with varying degrees of previous experience, ranging from immediate post-interns to qualified specialists and even a retired academic.

PROGRAMME CONTENT

The programme was offered over a period of 2 years, with more time being negotiable according to each trainee's needs. Six major rotations, each of 6 months' duration, were available; in other words each trainee could complete four of these in a 2-year period. Rotations were in internal medicine, surgery, paediatrics, anaesthetics, obstetrics and gynaecology, and family medicine/primary care (Table I). Each of these departments was headed by a consultant to whom the trainee was responsible, and who acted as a clinical supervisor. Paediatric and anaesthetics rotations were completed in the respective academic departments of King Edward VIII Hospital, and a 3-month orthopaedics rotation was offered at Ngwelezane Hospital, Empangeni, under the supervision of a specialist orthopaedic surgeon. Community health skills were

Table I. Six-month rotations

Internal medicine
Surgery, including orthopaedics
Obstetrics and gynaecology
Anaesthetics
Family medicine/primary care
Paediatrics/community health

acquired during the paediatric rotation when trainees were assigned to a peri-urban informal settlement near Durban. During this rotation they worked at the local clinic and carried out community surveys of common preventable problems, working with a group of community health workers. Each trainee spent 1 month during their training in a rural hospital in KwaZulu-Natal working as one of the team of medical officers there in order to gain experience of the realities of health care in under-served areas. This proved to be a particularly intense time of learning for a number of trainees, as their clinical skills as well as their suitability for a rural environment were put to the test.

Particular attention was paid to the acquisition of a level of skills appropriate to a generalist operating at a distance from specialist support.¹⁰ For example, the emphasis in the orthopaedics rotation was towards closed reductions as far as possible, rather than internal fixation techniques. Similarly, with caesarean sections being the commonest single major operation performed in rural hospitals, trainees were expected to master every possible complication of this operation, including emergency hysterectomy in extreme cases. While this level of expected competency is relatively easy to determine with regard to surgical skills, it is more difficult to draw a line for less technical skills such as counselling or terminal care.

The attitudes of the trainees and their responses to ethical and moral issues were shaped in a number of ways throughout the programme. The context of McCord Hospital itself was a powerful influence on the norms that trainees set for themselves. The significant impact of appropriate role-models was recognised, and a number of senior medical officers who had previously worked in under-served areas provided this lead. The group of trainees met weekly with the director, and issues that had arisen out of the preceding week's experience with patients and staff were raised and discussed. This meeting time was protected from the ever-present demands of clinical practice, and proved to be the 'core' of the programme as it developed. The discussions were open-ended and reflective in nature, with the intention of allowing the trainees to explore for themselves the deeper aspects of professional, clinical, ethical and spiritual issues as they arose from daily experience. Examples of topics of discussion, initiated by the trainees themselves, are given in Table II. In addition to the weekly meetings, each trainee met the director quarterly in order to discuss progress on an individual basis.



Table II. Topics of discussion initiated by trainees

Cross-cultural care
Dealing with difficult clinical decisions in the labour ward
Counselling HIV-positive patients
Dealing with the relatives of terminally ill patients
Coping with failure, stress and burnout
Tense moments in the operating theatre
Learning through experience
Caring for individuals and communities
Responses to violence in our society

ASSESSMENT

Formative evaluation was carried out through audits completed by each trainee at the end of each 6-month rotation; these were written up and presented to the peer group for discussion in the presence of the medical superintendent. A Competency Assessment Tool, a portion of which is shown in Table III, was also used to guide progress. Discrepancies between the trainee's self-assessment and the clinical supervisor's assessment of the trainee provided rich opportunities for learning. Learning by trainees was also gauged from the standard of patient presentations at each weekly meeting.

The summative assessment was the Membership of the College of Family Practitioners (MCFP) examination of the College of Medicine of South Africa, which was taken after 2 years. Upon completion of the programme, graduates received a certificate from McCord Hospital for vocational training, which is an accredited programme with the South African Medical and Dental Council. In addition all those trainees who completed the anaesthetics rotation wrote the Diploma in Anaesthetics. Further optional courses undertaken by trainees have included Diplomas in Child Health and Obstetrics, the Advanced Trauma Life Support Programme (ATLS) course, Master's programmes in Family Medicine, and Zulu language courses.

OUTCOME

Of the 10 trainees who have completed the full 2-year training period to date, 8 are currently working in situations that are consistent with the aims of the programme, namely in generalist practice in areas of need. Nine of the 18 trainees who entered the programme from January 1995 to December 1997 are similarly placed. Of the 8 who left the programme prematurely before completing 2 years, 5 have entered specialty training, 1 has entered general practice, 1 has taken a research position and 1 has left the country. All 10 trainees who completed the anaesthetics rotation have been awarded the Diploma in Anaesthetics, 3 have been awarded the Diploma of Child Health, and 1 the Diploma in Obstetrics and Gynaecology. Eight trainees have completed the ATLS course successfully.

Table III. Competency Assessment Tool for general hospital practice

Name of trainee:
 Name of supervisor:
 Date: .
 Two copies of this tool should be completed each time: one by the trainee and one by the clinical supervisor of that discipline. This list is intended as a self-assessment guide as well as an objective checklist for supervisors of vocational trainees. It is used at the start as well as the middle and the end of the training programme in order to give trainees an idea of their own progress.
 0 = Know nothing
 1 = Vague knowledge
 2 = Good knowledge but no experience
 3 = Experience but need supervision/teaching
 4 = No need for supervision
 5 = Can teach someone else happily

Anaesthetics & emergency care

Airway maintenance	0	1	2	3	4	5
Difficult intubations	0	1	2	3	4	5
Anaesthetic equipment	0	1	2	3	4	5
Inhalational drugs	0	1	2	3	4	5
Analgesic drugs	0	1	2	3	4	5
Anaesthetic agents	0	1	2	3	4	5
Muscle relaxants	0	1	2	3	4	5
Central venous catheter insertion	0	1	2	3	4	5
Ketalar: complications	0	1	2	3	4	5
Brachial or axillary blocks	0	1	2	3	4	5
Spinal anaesthetic complications	0	1	2	3	4	5
Obstetric anaesthesia	0	1	2	3	4	5
Management of shock	0	1	2	3	4	5
Transport of the critical patient	0	1	2	3	4	5
Anaesthetic death — procedures	0	1	2	3	4	5

Community care

Community evaluation methods	0	1	2	3	4	5
Community development projects	0	1	2	3	4	5
Community health worker training	0	1	2	3	4	5
District health system	0	1	2	3	4	5
Primary health care/clinic nurse teaching	0	1	2	3	4	5
Peripheral clinic visits	0	1	2	3	4	5
Home visits	0	1	2	3	4	5
Rapid health evaluation methods	0	1	2	3	4	5
Tuberculosis control in the community	0	1	2	3	4	5
Expanded programme of immunisation	0	1	2	3	4	5
AIDS awareness at community level	0	1	2	3	4	5
Management of epidemics	0	1	2	3	4	5

Surgery

Circumcision	0	1	2	3	4	5
Debridement/sloughectomy/ sequestrectomy	0	1	2	3	4	5
Dealing with pus	0	1	2	3	4	5
Excision of lumps	0	1	2	3	4	5
Trucut biopsy	0	1	2	3	4	5
Split skin graft	0	1	2	3	4	5



Table III. (continued)

Appendicectomy						
Uncomplicated	0	1	2	3	4	5
Ruptured	0	1	2	3	4	5
Abscess	0	1	2	3	4	5
Laparotomy						
Perforated ulcer	0	1	2	3	4	5
Stab/gunshot wound small bowel	0	1	2	3	4	5
Amputations						
Guillotine	0	1	2	3	4	5
Above-knee	0	1	2	3	4	5
Below-knee	0	1	2	3	4	5
Indirect inguinal hernia repair	0	1	2	3	4	5
Umbilical hernia repair	0	1	2	3	4	5
Hand surgery	0	1	2	3	4	5
Hydrocoelectomy	0	1	2	3	4	5
Head injuries management	0	1	2	3	4	5
Exploration of the testis	0	1	2	3	4	5
Urethral dilatation	0	1	2	3	4	5
Enucleation/visceration of eye	0	1	2	3	4	5
Snakebite management	0	1	2	3	4	5
Severe epistaxis management	0	1	2	3	4	5

Note: Similar lists for administration, family medicine/primary care, internal medicine, obstetrics and gynaecology, and paediatrics have not been included here for reasons of space.

The effect of the programme on the attitudes and motivations of trainees is more difficult to assess accurately. It will only be possible, over time, to quantitatively gauge this effect by the length of time that graduates of the programme remain in under-served situations. Deeper assessments of current practice attitudes are subjective, but feedback from trainees who have subsequently joined the staff of rural hospitals has been positive. In the words of one trainee: 'Coming here [to a rural hospital] has been easy because the transition from McCord was simple: I had prepared myself for this kind of work'.

DISCUSSION

The accumulation of a comprehensive repertoire of clinical skills combined with the less measurable but vital attitudes of commitment and caring, are tasks that every young doctor needs to accomplish. When situated in an under-served or rural context, far from specialist and technological assistance, these skills and attitudes are particularly crucial, and are frequently put to the test. Many graduates feel unprepared by their undergraduate training for independent practice, especially in a rural area — this has been formally recognised by the Interim National Medical and Dental Council (INMDC) recently.¹¹ The implementation of compulsory community service for every post-intern is likely to bring this issue to the fore in the near future. The proposed introduction of postgraduate vocational training for all medical graduates puts

the experiences of the McCord programme into significant perspective, being a local and recent example of what is envisaged nationally.

The programme has met its immediate goals in terms of the placement of its graduates, namely that half would enter generalist practice in an under-served situation. That half of the trainees who joined the programme went off in directions different to those of the aims of the programme, is not unexpected. Young, newly qualified doctors in particular need to find a sense of vocation and make their career choices from an informed position. In fact most of those who completed the 2-year programme had had some previous experience before joining, and were more aware of a sense of vocation than their younger colleagues. This is reflected in the result that 8 of the 10 trainees who have completed the 2-year training period are currently working in under-served situations. In the context of training doctors the word 'vocation', meaning a calling or special sense of purpose, therefore implies a deeper commitment than merely the accumulation of clinical skills.

Experiential learning in the working situation is necessarily opportunistic, relying on whatever situations happen to arise in the context of a general hospital to act as stimuli to learning. The patients set the curriculum, and common conditions are thoroughly rehearsed, whereas rare problems may not be encountered at all by the trainee. An essential component of the learning process, however, is one of reflection on experience; specific time and effort need to be devoted to reflection in order that learning experiences may become meaningful and lead to a change in behaviour where appropriate. The weekly peer group discussions in the McCord programme provided an opportunity for this. Even the most negative and apparently disastrous experiences can become powerful learning stimuli if the process of reflection is thorough and directed. This is an active process, and requires specific facilitation.

A drawback of McCord Hospital as the central site of the programme is that it is situated in a city rather than in a rural or under-served area. This conveys an unconscious message to trainees, some of whom then remain in the city after completion of their training period. The 1-month rural exposure during the training period has been valuable, but is insufficient to counteract the pull of the city. This issue has been recognised, and the programme is currently being decentralised by rotating trainees for 6 - 12-month periods through rural hospitals where there is an identified senior supervisor available.

Furthermore, it may be argued that the level of clinical supervision on the McCord programme, largely by specialists, and the protected time for reflective learning, are luxuries that cannot be afforded in most public hospitals. This model may, therefore, be difficult to reproduce on a wider scale in State hospitals in this country. However, the need for adequate clinical supervision as well as regular opportunities for reflection are indispensable components of this kind of

training, and the McCord programme has demonstrated how it can be achieved. Training demands specific planning and resources, and these must be in place well in advance of the introduction of any new programme.

CONCLUSION

All of these findings are directly relevant to the introduction of compulsory vocational training and community service for medical graduates. Specific submissions have been made to the INMDC based on these experiences. The greatest difference between the McCord programme and the plans for a national scheme is the element of compulsion: McCord trainees applied to the programme electively and either came with a true sense of vocation, or were open to allow its development through the training period. While they may gain an equivalent level of clinical skill, trainees entering the national scheme under compulsion are at risk of developing negative attitudes to their work and their patients, and losing the notion of medicine as a vocation. They need the time and space to develop their own directions, as half of the entrants to the McCord programme showed. A crucial aspect in self-directed learning is the element of choice; the more control trainees are given over their own learning, the more motivated they will be to fulfil their learning needs in the training period as well as in the future.

The acknowledged spiritual element in the training relates directly to the motivation of these graduates with regard to providing a service in under-served areas, which is a stated aim of the National Department of Health. By means of a deliberate focus on the attitudinal and motivational aspects of the training, reflection on everyday situations and experiences with patients, and learning from role-models in appropriate contexts, the McCord programme actively promoted reflection on trainees' attitudes and motivations. As well as equipping trainees clinically, it is vital that future programmes also actively equip young doctors motivationally for the tasks that lie ahead of them.

References

1. Zwarenstein MF, Price MR. The 1983 distribution of hospitals and hospital beds in RSA by area, race, ownership and type. *S Afr Med J* 1990; **77**: 448-452.
2. Health Systems Trust. *Measuring the Move Towards Equity: From the Site of Service Delivery - Results from Nine Provinces*. Durban: HST 1997.
3. Health Systems Trust. *South African Health Review 1997*. Durban: HST 1997.
4. Savage R, Vaughan C. Training for excellence in the inner city. *BMJ* 1996; **31**: 544-546.
5. Strasser R, ed. *Policy on Training for Rural Practice*. Moe, Australia: World Organisation of National Colleges and Association of Family Doctors (WONCA), 1995.
6. Sankar U, Jinabhai CC, Munro GD. Health personnel needs and attitudes to rural service in KwaZulu-Natal. *S Afr Med J* 1997; **87**: 293-298.
7. Rourke JTB, Rourke LL. Rural family medicine training in Canada. *Can Fam Physician* 1995; **41**: 993-1000.
8. Hays RB. A training programme for rural general practice. *Med J Aust* 1990; **153**: 546-548.
9. Lusi J. *Programme des Medecins Residents au Zaire*. Nairobi: MAP International, 1995.
10. Mazwai EL. Training surgically competent doctors for South Africa rural areas. *S Afr J Surg* 1997; **35**: 147-148.
11. The Interim National Medical and Dental Council of South Africa. Report on Postgraduate Vocational Training in Medicine as agreed to by Council. Pretoria, 1997.